(ADAPTED FROM WI-585, APRIL 2005)

THIS STANDARDIZED DESIGN MUST BE ADAPTED TO THE SPECIFIC SITE. IT WAS DEVELOPED IN COOPERATION WITH THE WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION. THE DESIGN FOLDER IS FILED AT THE NRCS STATE OFFICE, 8030 EXCELSIOR DRIVE, MADISON, WISCONSIN 53717-2906

CONSTRUCTION JOINT

LIQUID-TIGHT JOINT ___ YES ___ NO

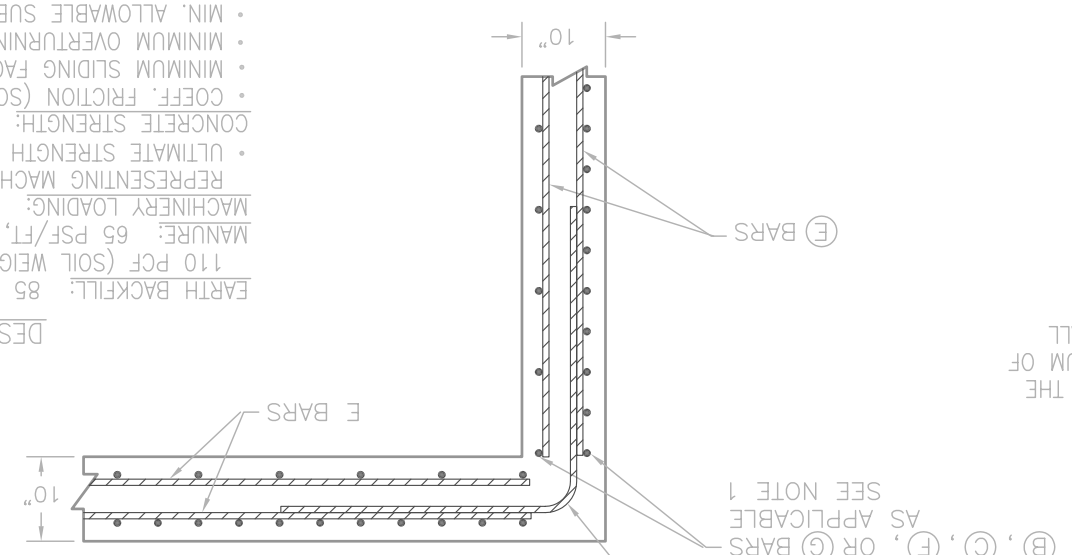
LIQUID-TIGHT JOINT OPTIONS

1) HYDROPHILIC WATERSTOP

CORNER NOTES

1. PLACE FIRST VERTICAL BAR AT WALL CORNER OR NO FURTHER THAN ONE-HALF BAR SPACING FROM THE INSIDE CORNER.
2. TIE (N) BAR TO OUTSIDE VERTICAL WALL STEEL IN SAME VERTICAL PLANE AS HORIZONTAL STEEL.
(N) BARS AT 4.5" VERTICAL SPACING IN TOP 4 FEET OF WALL AND 9" VERTICAL SPACING IN LOWER 4 FEET OF WALL.
3. SEE WALL SECTION FOR EXACT LOCATIONS OF ALL BARS.

PLAN VIEW
WALL CORNER DETAIL

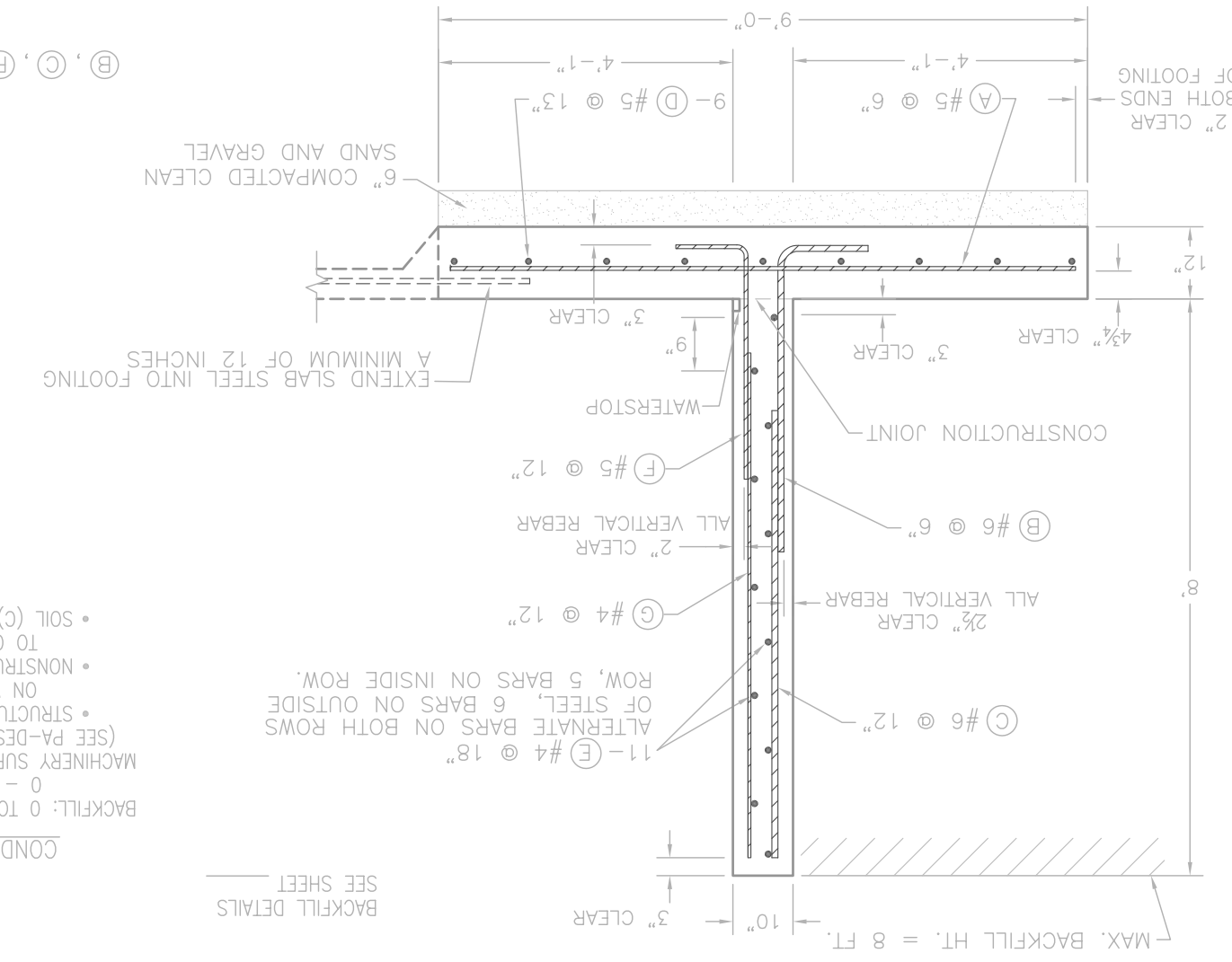


DESIGN VALUES

EARTH BACKFILL: 85 PSF/FT, EQUIVALENT FLUID PRESSURE
110 PCF (SOIL WEIGHT) AND >50% FINES
MANURE: 65 PSF/FT, EQUIVALENT FLUID PRESSURE
MACHINERY LOADING: 170 PSF EQUIV. FLUID PRESSURE
REPRESENTING MACHINERY LOAD ON SOIL
• ULTIMATE STRENGTH DESIGN (ACI 318-99)
CONCRETE STRENGTH: 4,000 PSI REBAR: GRADE 40
• COEFF. FRICTION (SOIL/CONCRETE) = 0.5
• MINIMUM SLIDING FACTOR OF SAFETY = 1.5
• MINIMUM OVERTURNING FACTOR OF SAFETY = 2.0
• MIN. ALLOWABLE SUBGRADE BEARING CAPACITY = 2000 PSF
• VERTICAL WALL LOAD FOR SLABS BEARING ON WALLS AND PUSH-OFFS = 1000 LBS./FT.
• NOT DESIGNED TO SUPPORT BUILDINGS OR ROOFS

NOTE: FILL PLACED FLUSH WITH THE TOP OF THE WALL FOOTING SHALL EXTEND A MINIMUM OF 4 FEET BEYOND THE EDGE OF THE WALL FOOTING.

WALL SECTION



CONDITIONS OF USE

BACKFILL: 0 TO 8 FEET
0 - 100% FINES
MACHINERY SURCHARGE LOADING CONDITIONS ALLOWED:
(SEE PA-DESIGN GUIDE 4)
• STRUCTURAL SLAB OR PUSH-OFF ON WALL (A)
• NONSTRUCTURAL SLAB ADJACENT TO OR ON WALL (B)
• SOIL (C)

STEEL DETAILS

BAR SIZE	BEND DIAMETER (D) INCHES	SPLICE LENGTH INCHES (MIN.)*
#4	3	16
#5	3-3/4	20
#6	4-1/2	24

* IF TWO BARS OF DIFFERENT DIAMETER ARE SPLICED, USE THE LONGER SPLICE LENGTH.

LINEAL FEET OF WALL _____

STEEL SCHEDULE (GRADE 40)

MARK	SIZE	TYPE	R	S	LENGTH	TOTAL LENGTH
A	#5	STR	---	---	8'-8"	
B	#6	2	4'-3"	1'-3"	5'-6"	
C	#6	STR	---	---	6'-3"	
D	#5	STR	---	---		
E	#4	STR	---	---		
F	#5	2	3'-3"	1'-0"	4'-3"	
G	#4	STR	---	---	7'-0"	
N	#4	2	2'-6"	2'-6"	5'-0"	

8' HIGH, 10" T-WALL (BACKFILL 0-8 FT.)

ALL SOILS, MACHINERY ALLOWED

COUNTY, PENNSYLVANIA

NRCS
Natural Resources Conservation Service
United States Department of Agriculture

File No.	PA-028B
Drawing No.	PA-028B
Sheet	___ of ___

Designed _____ Date _____
Drawn TJA 06/24/05
Checked _____
Approved By _____